CLAIM AMENDMENTS

1. (Currently Amended) A method of determining the inflow profile of an injection wellbore, comprising:

stopping injection of fluid into a formation, the formation intersected by a wellbore having a section uphole of the formation and a section within the formation;

~~monitoring~~ observing temperature at least partially along the uphole section of the wellbore and at least partially along the formation section of the wellbore, while injection of fluid is stopped;

injecting fluid into the formation ~~once the temperature in the uphole section of the wellbore increases~~ based on an observed temperature peak in the region of the wellbore proximate the uphole side of the formation; and

monitoring, while injecting fluid, the movement of the ~~increased~~ peaked temperature fluid as it moves from the region proximate the uphole side of the formation and further ~~uphole section of the wellbore~~ along the formation section of the wellbore.

2. (Currently Amended) The method of claim 1, wherein the temperature ~~monitoring~~ observing is performed ~~by~~ using a distributed temperature sensing system.

3. (Currently Amended) The method of claim 1, further comprising computing the velocity of the ~~increased~~ peaked temperature fluid in the formation section of the wellbore.

4. (Currently Amended) The method of claim 3, further comprising plotting the velocity of the ~~increased~~ peaked temperature fluid as a function of depth in the formation section of the wellbore.

5. (Original) The method of claim 3, wherein the inflow profile indicates the percentage of fluid injected along the length of the formation section of the wellbore.

6. (Original) The method of claim 3, further comprising:

measuring the injection rate of fluid at the surface; and

calculating the inflow profile in quantitative form.

7. (New) The method of claim 2, wherein using the distributed temperature sensing system comprises using an optical fiber to sense temperature in the wellbore.

8. (New) A system usable with a well, comprising:

an injection system to inject and to stop injection of fluid into a formation, the formation intersected by a wellbore having a section uphole of the formation and a section within the formation; and

an observation system to observe temperature at least partially along the uphole section of the wellbore and at least partially along the formation section of the wellbore,

wherein, after injection of fluid is stopped, the injection system re-starts injection of fluid into the formation based on an observed peak in temperature in the region of the wellbore proximate the uphole side of the formation section, and

wherein, once injection of fluid is re-started, the observation system monitors movement of the peaked temperature fluid as it moves from the region proximate the uphole side of the formation and further along the formation section.

9. (New) The system of claim 8, wherein the observation system comprises a distributed temperature sensing system.

10. (New) The system of claim 9, wherein the distributed temperature sensing system comprises an optical fiber disposed in the wellbore to sense temperature at least partially

along the uphole section of the wellbore and at least partially along the formation section of the wellbore.